

# ELECTRONIC HEALTH RECORD SYSTEM SINGLE PAGE WEB APPLICATION FRONT END

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**Abstract** - Electronic health record (EHR) system records health-related information of an individual so that it can be used by clinicians or by the staff of the hospital for patient care or for the further treatments of the patients or of an individual. One of the formal definition of an EHR is that it is an electronic versions of patients' healthcare, that is maintained by the provider time to time according to the detail provided, electronic health record gathers, creates, and stores the health record electronically, it may include all the key administrative and clinical data relevant to that person's or patient care under a particular provider.

The electronic health record will improve clinical documentation, quality, healthcare utilization tracking, billing and coding, and make health records more portable and efficient to use whenever needed. The benefits of an electronic health record include a gain in healthcare efficiencies, large gains in quality and safety, and lower health care costs for consumers EHR have some clear advantages because the record is systematically organized and the notes are legible. Progress notes are generally in a structured form, with very few recording errors and missed components. It provides the availability of rapid information retrieval and hence promotes more efficient way of delivery of patient care. Additional quality assurance benefits are errors related to misreading handwritten notes are reduced as records are store electronically, prescription writing errors are reduced, authorship of each note is clearly indicated and changes in the notes are readily identifiable more efficiently.

**Key Words:** Web application, Patient Record

## 1. INTRODUCTION

The Institute of Medicine reported to Err is Human that building a Safer Health System cites one of the most extensive adverse drug event studies. In order to: reduce medical errors, provide more elective methods of communicating and sharing information among clinicians, and medical records, we need to embrace information technology in healthcare. Since medical errors are a leading cause of death and paper records can be easily lost, misplaced, or are open illegible, hence the use of electronic health record technology would reduce many of these issues and lead to major progress in the health and safety of patient care. Electronic Health Records (EHRs) are computerized medical information systems that collect, store and display patient information. They are means to create and organize the recordings and to access clinical information about individual patients. Electronic Health Records (EHRs) are viewed as interchangeable synonyms in most health informatics. Other similar expressions exist albeit with a sometimes slightly restricted focus .The Institute of Medicine and others have suggested that the wide-scale adoption of the EHRs could be pivotal for improving patient safety and health care quality. However, in spite of the presence emerging evidence about the advantages of EHRs, there are considerable disadvantages to adoption.

The health care sector is an area of social and economic interest in several countries; therefore, there have been lots of efforts in the use of electronic health records. Physicians have a vital role in the usage of the EHRs, as they are the one, who provide the information that the systems handle in their automated processes. Despite of broad agreement on the advantages of electronic health records and other forms of health information technology, the providers have moved slowly to adoption of these technologies.

## 2. LITERATURE SURVEY

Architecture-based development has been applied for many years to solve issues such as interoperability between legacy systems and to help the development, integration and evolution of complex software systems [Garlan, 2014]. However, in health information systems, such as EHR applications, software architecture is still not common sense, and when architecture is considered, it is based on a single view or a mix of views in only one picture.

[Yutaka Hata, et.al. 2009] In this paper, it describes a human health management system scheme and its applications. Specifically, it focuses on health management system, medical diagnosis, and surgical support system of systems engineering (SoSE). Human health management is the level one, of daily monitoring for a healthy human. In this paper is important to understand the term “Daily Health care” that will help to avoid the health diseases by taking precautions like doctor early advice.

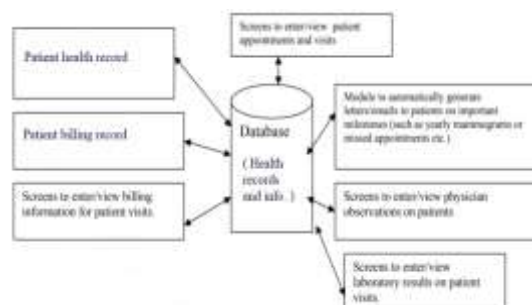
[Nguyen et al., 2014] proposed recently highlighted important details about EHR application worldwide. For instance, according to the authors, the adoption of EHR will increase significantly worldwide due to its several benefits. This review confirms the potential EHRs have to aid patient care and clinical documentation. When system complexity grows, it is commonly advised to develop applications having well-defined software architecture as basis.

[Watcharachai Wiriyasuttiwong and Walita Narkbuakaew, 2009] This research proposes design and development of the medical based knowledge. This paper tells about the signs and symptoms of a particular disease. The knowledge construction was based on production rules. The inference engine uses interactive forward chaining technique to infer a diagnostic result. The proposed system was designed to interact with user by using question forms of symptoms, and it was able to support text and picture information *x* (italicized) in the text if they are used as mathematical symbols. Punctuation marks are used in the end of equations as if they appeared in the text.

### 3. DESIGNING AND IMPLEMENTING AN EHR SYSTEM

An Electronic Health Record (EHR) is a digital type of a patient’s paper-based medical record. Electronic health record (EHR) systems have to transform the health care system from a mostly paper-based industry to one that utilizes clinical and other pieces of information providers in delivering higher quality of care to their patients. Provide single, shareable, accurate information available anywhere at any time it has capability of maintain a data and information.

In this system we will allow the EHR Result management improve ability for all providers participating in the care of a patient in multiple settings to quickly access new and past test results would increase patient safety and the effectiveness of care, it will provide security. EHR provide to enter and store orders for prescriptions, tests, and other services in a computer-based system should enhance reduce duplication, and improve the speed with which orders are executed. Patient to efficiently manage the health related record. And Appointment with the doctor and appointment details which will stored in a server. This should result in improved services to patients as well as for doctor, especially for doctor to improved efficiency by minimizing errors in data entry, and an increase in revenue for the clinics as more patients can be served. EHR gives full good communication and connectivity and support, secure accessible. HER patient support gives patient access to view their report while sitting at home they must be able to see reports. As E-prescription has been defined as the computer-based electronic generation, and filling of a prescription, taking the E-prescription instead of paper-based prescribing. Most prescription occurs in the private *Practitioner* doctor setting, where paper-based prescribing is most heavily used, so this type of system setting receives the greatest potential for e-prescribing to be achieved. As doctor will also able to login on the system so doctor will able to see and check the problem of the patient as well as Nurse will be allotted in every floor by online system, providing access to the system that nurse will be able to see the details of patient about health but not able to modify on the data.



#### **4. BENEFITS OF PROPOSED EHRS**

- 1-Improve quality and convenience of patient care.
- 2- Increase patient participation in their care.
- 3-it will improve accuracy of diagnoses and health outcomes.
- 5- Increase practice efficiencies and cost savings.
- 6- Designing the EHR system backend with MySQL server.
- 7- Implementing the EHR system in the web using angular and PHP programming.

#### **5. CONCLUSION**

The electronic health record system (EHR) has given a new and different face to the world of medical. The system provides a comfortable and easy platform for the storage of data of patients. This gives the flexibility of data accuracy and security. Data are easy to access and store for reference. The system is adopted by many hospitals and is considered to be the better resource to be used for recording the data of the patients. This also allows patient participation for getting their medical status, medical history and their records. Hence the benefits provided by the system have raised its value and usage for getting a better digital platform for storage of data.

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